ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2001 ACS r_8 2001:101001 HCAPLUS NΑ DN 134:183461 ΙT Conjugates and methods for the production thereof for transporting molecules across biological membranes IN Uhlmann, Eugen; Greiner, Beate; Unger, Eberhard; Gothe, Gislinde; Schwerdel, Marc Aventis Pharma Deutschland Gmbh, Germany PA SO PCT Int. Appl., 84 pp. CODEN: PIXXD2 DTPatent LA German FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE WO 2001008707 PΤ A2 20010208 WO 2000-EP6936 20000720 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG DE 1999-19935302 19990728 DE 19935302 A1 20010208 19990728 PRAI DE 1999-19935302 A MARPAT 134:183461 OS AΒ The invention relates to conjugates, methods for their prodn., and to the use of these conjugates for transporting low mol. wt. compds. and macromols. across biol. membranes, in particular, for transporting mols. into cells. The invention also relates to medicaments, diagnostic agents and test kits in which these conjugates are present or introduced. IT89962-57-2P 325760-02-9P 325760-03-0P 325760-04-1P 325760-05-2P 325760-06-3P 325760-07-4P 325760-08-5P 325760-09-6DP, conjugate with Cy3 325760-10-9P RL: BPR (Biological process); PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses) (conjugates for transporting mols. across biol. membranes) 89962-57-2 HCAPLUS RN Adenosine, 2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-CN 2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'deoxyadenylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

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RN
    325760-02-9 HCAPLUS
CN
    DNA, d(D-G-C-G-A-C-G-C-C-A-T-G-A-C-G-G) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
    325760-03-0 HCAPLUS
CN
    DNA, d(D-C-G-A-C-G-C-C-A-T-G-A-C) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
    325760-04-1 HCAPLUS
    DNA, d(D-A-T-G-A-C-G-G-A-A-T-T-C) (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
    325760-05-2 HCAPLUS
CN
    DNA, d(D-T-A-T-T-C-C-G-T-C-A-T) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
    325760-06-3 HCAPLUS
RN
CN
    A-A-A-A-A-A-A-A-A-A-A-A-A-A) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
    325760-07-4 HCAPLUS
CN
    A-A-A-A-A-A-A-A) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
    325760-08-5 HCAPLUS
RN
    DNA, d(T-T-C-C-A-T-G-G-T-G-G-C) (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
    325760-09-6 HCAPLUS
RN
CN
    DNA, d(T-T-C-A-C-T-G-T-G-G-C) (9CI)
                                       (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
    325760-10-9 HCAPLUS
CN
    DNA, d(T-G-G-C-G-C-C-G-G-C-C) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
    146397-20-8D, Cy3, conjugate with oligonucleotides
TT
    RL: BPR (Biological process); PEP (Physical, engineering or chemical
    process); THU (Therapeutic use); BIOL (Biological study); PROC (Process);
    USES (Uses)
       (transport of; conjugates for transporting mols. across biol.
       membranes)
RN
    146397-20-8 HCAPLUS
    3H-Indolium, 1-[6-[(2,5-\text{diox}o-1-\text{pyrrolidiny})] - 6-\text{ox}ohexy] - 2-[3-[1-[6-
    [(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-
    sulfo-2H-indol-2-ylidene]-1-propenyl]-3,3-dimethyl-5-sulfo-, inner salt
    (9CI) (CA INDEX NAME)
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IT
    104053-06-7 110616-00-7 116364-61-5
     121938-12-3 121962-43-4 131593-63-0
     146216-12-8 147655-52-5 147786-19-4
     153426-37-0 155002-55-4 155002-57-6
     161415-79-8 161415-81-2 163665-40-5
     164910-61-6 165447-62-1 166436-80-2
     173432-53-6 173432-56-9 173432-57-0
     173432-58-1 173432-59-2 173432-60-5
     173432-61-6 173432-62-7 173432-63-8
     173432-67-2 173432-68-3 173432-69-4
     173432-70-7 173432-71-8 188134-42-1
     188704-72-5 246223-25-6 259082-59-2
     259082-61-6 259082-72-9 259082-73-0
     259082-74-1 259082-78-5 259082-79-6
     259082-80-9 259082-81-0 259082-82-1
     259082-83-2 259082-97-8 259083-00-6
    259083-01-7 325761-26-0 325761-27-1
     325761-28-2, 5: PN: WO0108707 SEQID: 23 unclaimed DNA
     325761-29-3
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RL: PRP (Properties)
        (unclaimed nucleotide sequence; conjugates and methods for
        the prodn. thereof for transporting mols. across biol.
        membranes)
RN
     104053-06-7 HCAPLUS
     Guanosine, 2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-
CN
     (3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-
     (3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-
     (3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-
     (3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-
     deoxycytidylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-
     (3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-
     (3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-
     (3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-
     2'-deoxy- (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     110616-00-7 HCAPLUS
RN
CN
     Adenosine, thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-
     deoxycytidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-
     deoxyguanylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-
     deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-thymidylyl-
     (5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-
     (5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy- (9CI) (CA INDEX
     NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     116364-61-5 HCAPLUS
CN
     DNA, d(T-A-T-T-C-C-G-T-C-A-T) (9CI) (CA INDEX NAME)
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Absolute stereochemistry.

PAGE 1-A

PAGE 3-B

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RN
     121938-12-3 HCAPLUS
     Guanosine, 2'-deoxycytidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-
CN
     (5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-
     (5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-
     thymidylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-thymidylyl-
     (5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-
     (5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-
     (5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-
     (5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-
     2'-deoxy- (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     121962-43-4 HCAPLUS
RN
     Guanosine, 2'-deoxycytidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-
CN
     (5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-
     (5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-
     (5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-
     thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-
     (5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-
     (5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-
     2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxy- (9CI)
     (CA INDEX NAME)
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*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     131593-63-0 HCAPLUS
CN
     DNA, d(G-G-C-T-G-C-T-G-G-A-G-C-G-G-G-C-A-C-A-C) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     146216-12-8 HCAPLUS
     Guanosine, 2'-deoxycytidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-
CN
     (5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-
     2'-deoxycytidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-
     deoxycytidylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-
     (5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-
     2'-deoxycytidylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-2'-
     deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-
     (5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-2'-deoxy- (9CI) (CA INDEX
     NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     147655-52-5 HCAPLUS
RN
     Thymidine, 2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-
CN
     (3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-
     (3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-
     deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-
     deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-
     deoxyguanylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-
     deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')- (9CI) (CA
     INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     147786-19-4 HCAPLUS
     Guanosine, 2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-
CN
     2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-
     thymidylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-2'-
     deoxycytidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-thymidylyl-
     (5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-
     (5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-
     (5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-
     (5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-
     2'-deoxy- (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     153426-37-0 HCAPLUS
     Thymidine, thymidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-
CN
     thymidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-
     deoxycytidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-
     deoxyadenylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-
     deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-thymidylyl-
     (3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-
     (3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-
     (3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-
     (3'.fwdarw.5') - (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
    155002-55-4 HCAPLUS
CN
    DNA, d(C-C-C-C-A-C-C-A-C-T-T-C-C-C-C-T-C-T-C) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
   155002-57-6 HCAPLUS
ВN
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CN
     DNA, d(G-C-C-C-A-A-G-C-T-G-G-C-A-T-C-C-G-T-C-A) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     161415-79-8 HCAPLUS
CN
     DNA, d(G-G-C-T-G-C-C-A-T-G-G-T-C-C-C) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     161415-81-2 HCAPLUS
CN
     DNA, d(G-T-C-T-T-C-C-A-T-A-G-T-T-A-C-T-C-A) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     163665-40-5 HCAPLUS
CN
     DNA, d(G-T-T-C-T-C-G-C-T-G-G-T-G-A-G-T-T-T-C-A) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
    164910-61-6 HCAPLUS
CN DNA, d(G-C-G-T-T-T-G-C-T-C-T-T-C-T-T-G-C-G) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
    165447-62-1 HCAPLUS
CN
   DNA, d(G-C-G-G-G-C-T-C-C-A-T-G-G-G-G-G-T-C-G) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
   166436-80-2 HCAPLUS
   DNA, d(C-A-C-C-G-C-C-T-T-G-G-C-C-T-C-C-A-C) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
   173432-53-6 HCAPLUS
   DNA, d(A-G-G-T-C-C-T-G-T-T-C-G-G-G-C-C-A) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
   173432-56-9 HCAPLUS
   DNA, d(C-A-G-C-T-G-C-A-A-C-C-C-A-G-C) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
   173432-57-0 HCAPLUS
CN
   DNA, d(G-G-A-G-A-C-A-T-C-A-T-G-G-T-C-G-A-A-A-G) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
   173432-58-1 HCAPLUS
CN
    DNA, d(C-C-C-G-A-G-A-A-C-A-T-C-A-T-G-G-T-C-G-A-A-G) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
   173432-59-2 HCAPLUS
RN
CN
    DNA, d(G-G-G-G-A-A-G-C-C-C-G-G-C-A-A-G-G-G-G) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
    173432-60-5 HCAPLUS
CN
    DNA, d(G-G-G-A-C-T-C-C-G-G-C-G-C-A-G-C-G-C) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
    173432-61-6 HCAPLUS
CN
    DNA, d(G-G-C-A-A-A-C-T-T-T-C-T-T-T-C-C-C) (9CI) (CA INDEX NAME)
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DNA, d(G-G-G-A-A-G-G-A-G-G-A-G-G-A-T-G-A-G-G) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

173432-62-7 HCAPLUS

RN

CN

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*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     173432-63-8 HCAPLUS
CN
     DNA, d(G-G-C-A-G-T-C-A-T-C-C-A-G-C-T-T-C-G-G-A-G) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     173432-67-2 HCAPLUS
RN
CN
     DNA, d(G-C-A-G-T-A-A-G-C-A-T-C-C-A-T-A-T-C) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     173432-68-3 HCAPLUS
RN
     DNA, d(C-T-C-C-C-C-C-A-C-C-A-C-T-T-C-C-C-C-T-C) (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
    173432-69-4 HCAPLUS
CN
     DNA, d(G-C-T-G-G-G-A-G-C-C-A-T-A-G-C-G-A-G-G) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     173432-70-7 HCAPLUS
RN
CN
     DNA, d(A-C-T-G-C-T-G-C-C-T-C-T-G-T-C-T-C-A-G-G) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     173432-71-8 HCAPLUS
CN
     DNA, d(C-A-A-T-C-A-A-T-G-A-C-T-T-C-A-A-G-A-G-T-T-C) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     188134-42-1 HCAPLUS
CN
     DNA, d(T-C-C-C-G-C-C-T-G-T-G-A-C-A-T-G-C-A-T-T) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
    188704-72-5 HCAPLUS
CN
     DNA, d(G-A-T-G-G-A-G-G-C-G-G-C-A-T-G-G-C-G-G) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     246223-25-6 HCAPLUS
CN
     DNA, d(G-C-G-G-C-G-A-A-A-A-G-C-C-A-T-C-G) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     259082-59-2 HCAPLUS
CN
     DNA, d(G-G-A-G-G-C-C-C-G-A-C-C) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     259082-61-6 HCAPLUS
RN
CN
    DNA, d(G-G-T-T-T-C-G-G-A-G-G-C) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
    259082-72-9 HCAPLUS
CN
    DNA, d(T-G-G-T-G-G-A-G-G-T-A-G) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
    259082-73-0 HCAPLUS
CN
    DNA, d(G-C-A-T-G-G-T-G-G-A-G-G) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     259082-74-1 HCAPLUS
CN
     DNA, d(T-T-G-G-C-A-T-G-G-T-G-G) (9CI) (CA INDEX NAME)
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*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     259082-78-5 HCAPLUS
     DNA, d(G-C-C-T-G-G-G-A-C-C-A-C) (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     259082-79-6 HCAPLUS
RN
     DNA, d(C-A-G-C-C-T-G-G-G-A-C-C) (9CI)
CN
                                            (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     259082-80-9 HCAPLUS
CN
     DNA, d(T-G-C-A-G-C-C-T-G-G-G-A) (9CI)
                                            (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     259082-81-0 HCAPLUS
     DNA, d(G-T-G-C-A-G-C-C-T-G-G-G) (9CI)
CN
                                            (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     259082-82-1 HCAPLUS
CN
     DNA, d(G-G-T-G-C-A-G-C-C-T-G-G) (9CI)
                                            (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     259082-83-2 HCAPLUS
CN
     DNA, d(A-T-G-G-G-T-G-C-A-G-C-C) (9CI)
                                            (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     259082-97-8 HCAPLUS
RN
     DNA, d(G-G-C-T-T-G-A-A-G-A-T-G) (9CI)
CN
                                            (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     259083-00-6 HCAPLUS
RN
     DNA, d(G-C-A-G-C-C-C-C-G-C-A) (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     259083-01-7 HCAPLUS
CN
     DNA, d(G-C-A-G-C-A-G-C-C-C-C) (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     325761-26-0 HCAPLUS
RN
     11: PN: WOO108707 SEQID: 11 unclaimed DNA (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     325761-27-1 HCAPLUS
CN
     18: PN: WO0108707 SEQID: 18 unclaimed DNA (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     325761-28-2 HCAPLUS
     5: PN: WO0108707 SEQID: 23 unclaimed DNA (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     325761-29-3 HCAPLUS
CN
     15: PN: WO0108707 SEQID: 33 unclaimed DNA (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
rs
    ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2001 ACS
AΝ
     1999:220014 HCAPLUS
DN
     130:249137
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TI
     Novel targeted ultrasound imaging contrast agents for diagnostic and
     therapeutic use
     Unger, Evan C.; Fritz, Thomas A.; Gertz, Edward W.
IN
     ImarRx Pharmaceutical Corp., USA
PA
SO
     PCT Int. Appl., 223 pp.
     CODEN: PIXXD2
DT
     Patent
    English
LA
FAN.CNT 4
                                         APPLICATION NO. DATE
     PATENT NO. KIND DATE
    WO 9913919
                     A1 19990325 WO 1998-US18858 19980909
PΙ
        W: AU, CA
        RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
            PT, SE
                           20001031 US 1997-932273
19990405 AU 1998-93830
19991201 EP 1998-946919
     US 6139819
                                                           19970917
    AU 9893830
                      A1
                                                           19980909
     EP 959908
                     A1
                                          EP 1998-946919
                                                           19980909
        R: DE, FR, GB, IT
PRAI US 1997-932273 A
                          19970917
    US 1995-497684 B2 19950607
    US 1996-640464 B2 19960501
    US 1996-660032 B2 19960606
    US 1996-666129 A2 19960619
    WO 1998-US18858 W
                           19980909
    This invention describes novel contrast agents which may be used for
AΒ
     diagnostic and therapeutic use. The compns. may comprise a lipid, a
     protein, polymer and/or surfactant, and a gas, in combination with a
     targeting ligand. In preferred embodiments, the targeting ligand targets
     coagula, including emboli and/or thrombi, particularly in patients
     suffering from an arrhythmic disorder. The contrast media can be used in
     conjunction with diagnostic imaging, such as ultrasound, as well as
     therapeutic applications, such as therapeutic ultrasound.
ΙT
     50-21-5D, Lactic acid, polymer contg. 63-89-8,
     Dipalmitoylphosphatidylcholine 75-21-8D, Ethylene oxide, polymer
     contg. 75-56-9D, Propylene oxide, polymer contg. 75-73-0
     76-16-4, Perfluoroethane 76-19-7, Perfluoropropane
     79-06-1D, Acrylamide, N-substituted derivs., polymer contg.
     79-10-7D, Acrylic acid, hydroxyalkyl derivs., polymer contg.
     79-14-1D, Glycolic acid, polymer contg. 79-41-4D,
    Methacrylic acid, hydroxyalkyl derivs., polymer contg. 80-05-7D,
     Bisphenol A, polymer contg. 80-62-6D, Methyl methacrylate,
     polymer contg. 88-12-0D, N-Vinyl-2-pyrrolidone, polymer contg.
     100-42-5D, Styrene, polymer contg. 106-89-8D, polymer
     contg. 107-02-8D, Acrolein, polymer contg. 107-13-1D,
    Acrylonitrile, polymer contq. 107-21-1D, Ethylene glycol,
    polymer contg. 108-05-4D, Vinyl acetate, polymer contg.
     115-25-3, Perfluorocyclobutane 140-88-5D, Ethyl
     acrylate, polymer contg. 151-56-4D, Ethyleneimine, polymer
     contg. 307-34-6, Perfluorooctane 335-57-9,
     Perfluoroheptane 355-25-9, Perfluorobutane 355-42-0,
     Perfluorohexane 375-96-2, Perfluorononane 502-44-3D,
     .epsilon.-Caprolactone, polymer contg. 678-26-2,
     Perfluoropentane 816-94-4, Distearoylphosphatidylcholine
    868-77-9D, 2-Hydroxyethyl methacrylate, polymer contg.
     1187-59-3D, N-substituted derivs., polymer contg.
    1337-81-1D, Vinyl pyridine, polymer contg. 1520-21-4D,
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p-Amino-styrene, polymer contg. 2252-84-8, Heptafluoropropane
2551-62-4, Sulfur hexafluoride 3724-65-0D, Crotonic
acid, polymer contg. 4004-05-1, Dioleoylphosphatidylethanolamine
4235-95-4 4949-20-6D, 2,4-Pentadien-1-ol, polymer contg.
5681-36-7, Dipalmitoylphosphatidylethanolamine 7659-36-1D
, Aminoethyl methacrylate, polymer contg. 7727-37-9, Nitrogen,
analysis 7782-41-4D, Fluorine, gas contg. 9002-89-5,
Polyvinyl alcohol 9002-98-6 9003-01-4, Polyacrylic
acid 9003-05-8 9003-39-8, Polyvinylpyrrolidone
9003-54-7 9011-14-7, Polymethylmethacrylate
9016-00-6, Polydimethylsiloxane 9016-00-6D,
Dimethylsiloxane, polymer contg. 15802-18-3D, polymer contg.
18194-24-6, Dimyristoylphosphatidylcholine 19698-29-4,
Dipalmitoylphosphatidic acid 24980-41-4, Poly(.epsilon.-
caprolactone) 25014-12-4, Polymethacrylamide 25087-26-7
, Polymethacrylic acid 25248-42-4, Poly[oxy(1-oxo-1,6-
hexanediyl)] 25322-68-3 25322-69-4, Poly(propylene
oxide) 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)]
26100-51-6, Polylactic acid 26913-06-4,
Poly[imino(1,2-ethanediyl)] 27457-28-9D, Sodium styrene
sulfonate, polymer contg. 31900-57-9, Polydimethylsiloxane
45103-52-4D, polymer contg. 78543-25-6,
1-Hexadecyl-2-palmitoylglycerophosphoethanolamine 97782-02-0
208345-02-2 208345-03-3 217098-79-8D, polymer
contq.
RL: ARU (Analytical role, unclassified); BUU (Biological use,
unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL
(Biological study); USES (Uses)
   (contrast agent; novel targeted ultrasound imaging contrast agents for
   diagnostic and therapeutic use)
50-21-5 HCAPLUS
Propanoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)
```

RN

CN

RN 63-89-8 HCAPLUS

CN 3,5,9-Trioxa-4-phosphapentacosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxohexadecyl)oxy]-, inner salt, 4-oxide, (7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 75-21-8 HCAPLUS CN Oxirane (9CI) (CA INDEX NAME)



RN 75-56-9 HCAPLUS CN Oxirane, methyl- (9CI) (CA INDEX NAME)

RN 75-73-0 HCAPLUS CN Methane, tetrafluoro- (9CI) (CA INDEX NAME)

RN 76-16-4 HCAPLUS CN Ethane, hexafluoro- (8CI, 9CI) (CA INDEX NAME)

RN 76-19-7 HCAPLUS CN Propane, octafluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)

 $F_3C-CF_2-CF_3$

RN 79-06-1 HCAPLUS CN 2-Propenamide (9CI) (CA INDEX NAME)

RN 79-10-7 HCAPLUS

CN 2-Propenoic acid (9CI) (CA INDEX NAME)

RN 79-14-1 HCAPLUS

CN Acetic acid, hydroxy- (9CI) (CA INDEX NAME)

$$\begin{matrix} \text{O} \\ || \\ \text{HO-C-CH}_2\text{-OH} \end{matrix}$$

RN 79-41-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl- (9CI) (CA INDEX NAME)

RN 80-05-7 HCAPLUS

CN Phenol, 4,4'-(1-methylethylidene)bis- (9CI) (CA INDEX NAME)

RN 80-62-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 88-12-0 HCAPLUS CN 2-Pyrrolidinone, 1-ethenyl- (9CI) (CA INDEX NAME)

RN 100-42-5 HCAPLUS CN Benzene, ethenyl- (9CI) (CA INDEX NAME)

 $H_2C = CH - Ph$

RN 106-89-8 HCAPLUS CN Oxirane, (chloromethyl)- (9CI) (CA INDEX NAME)

RN 107-02-8 HCAPLUS CN 2-Propenal (9CI) (CA INDEX NAME)

н2С == СН − СН == О

RN 107-13-1 HCAPLUS CN 2-Propenenitrile (9CI) (CA INDEX NAME)

 $H_2C = CH - C = N$

RN 107-21-1 HCAPLUS CN 1,2-Ethanediol (9CI) (CA INDEX NAME)

 ${\tt HO-CH_2-CH_2-OH}$

RN 108-05-4 HCAPLUS CN Acetic acid ethenyl ester (9CI) (CA INDEX NAME) $AcO-CH=CH_2$

RN 115-25-3 HCAPLUS CN Cyclobutane, octafluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 140-88-5 HCAPLUS CN 2-Propenoic acid, ethyl ester (9CI) (CA INDEX NAME)

RN 151-56-4 HCAPLUS CN Aziridine (9CI) (CA INDEX NAME)



RN 307-34-6 HCAPLUS CN Octane, octadecafluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

F3C- (CF2)6-CF3

RN 335-57-9 HCAPLUS CN Heptane, hexadecafluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)

F3C-(CF2)5-CF3

RN 355-25-9 HCAPLUS CN Butane, decafluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

F3C-CF2-CF2-CF3

RN 355-42-0 HCAPLUS

CN Hexane, tetradecafluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)

 $F_3C-(CF_2)_4-CF_3$

RN 375-96-2 HCAPLUS

CN Nonane, eicosafluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

F3C-(CF2)7-CF3

RN 502-44-3 HCAPLUS

CN 2-Oxepanone (8CI, 9CI) (CA INDEX NAME)

RN 678-26-2 HCAPLUS

CN Pentane, dodecafluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

F3C- (CF2)3-CF3

RN 816-94-4 HCAPLUS

CN 3,5,9-Trioxa-4-phosphaheptacosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxooctadecyl)oxy]-, inner salt, 4-oxide, (7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 868-77-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester (9CI) (CA INDEX NAME)

RN 1187-59-3 HCAPLUS

CN 2-Propenamide, N-methyl- (9CI) (CA INDEX NAME)

RN 1337-81-1 HCAPLUS

CN Pyridine, ethenyl- (9CI) (CA INDEX NAME)

D1-CH=CH2

RN 1520-21-4 HCAPLUS

CN Benzenamine, 4-ethenyl- (9CI) (CA INDEX NAME)

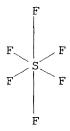
RN 2252-84-8 HCAPLUS

CN Propane, 1,1,1,2,2,3,3-heptafluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

 $F_2CH-CF_2-CF_3$

RN 2551-62-4 HCAPLUS

CN Sulfur fluoride (SF6), (OC-6-11)- (9CI) (CA INDEX NAME)



RN 3724-65-0 HCAPLUS

CN 2-Butenoic acid (9CI) (CA INDEX NAME)

 $Me-CH=CH-CO_2H$

RN 4004-05-1 HCAPLUS

CN 9-Octadecenoic acid (9Z)-, (1R)-1-[[[(2-aminoethoxy)hydroxyphosphinyl]oxy] methyl]-1,2-ethanediyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-B

__Me

RN 4235-95-4 HCAPLUS

CN 3,5,9-Trioxa-4-phosphaheptacos-18-en-1-aminium, 4-hydroxy-N,N,N-trimethyl-10-oxo-7-[[(9Z)-1-oxo-9-octadecenyl]oxy]-, inner salt, 4-oxide, (7R,18Z)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+). Double bond geometry as shown.

Me
$$^{(CH_2)}$$
 7 2 $^{(CH_2)}$ 7 7 7 2 $^{(CH_2)}$ 7 7 2 $^{(CH_2)}$ 7

PAGE 1-B

__ Me

RN 4949-20-6 HCAPLUS

CN 2,4-Pentadien-1-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

 $\text{H}_2\text{C} = \text{CH} - \text{CH} = \text{CH} - \text{CH}_2 - \text{OH}$

RN 5681-36-7 HCAPLUS

CN Hexadecanoic acid, 1-[[[(2-aminoethoxy)hydroxyphosphinyl]oxy]methyl]-1,2-ethanediyl ester (9CI) (CA INDEX NAME)

RN 7659-36-1 HCAPLUS CN 2-Propenoic acid, 2-methyl-, 2-aminoethyl ester (9CI) (CA INDEX NAME)

RN 7727-37-9 HCAPLUS CN Nitrogen (8CI, 9CI) (CA INDEX NAME)

 $N\!\!\equiv\equiv\!\! N$

RN 7782-41-4 HCAPLUS CN Fluorine (8CI, 9CI) (CA INDEX NAME)

F-F

RN 9002-89-5 HCAPLUS CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5 CMF C2 H4 O

 $_{12}C==CH-OH$

RN 9002-98-6 HCAPLUS CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 151-56-4 CMF C2 H5 N

RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7

RN 9003-05-8 HCAPLUS CN 2-Propenamide, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-06-1 CMF C3 H5 N O

CMF C3 H4 O2

RN 9003-39-8 HCAPLUS CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 88-12-0 CMF C6 H9 N O

RN 9003-54-7 HCAPLUS CN 2-Propenenitrile, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 107-13-1 CMF C3 H3 N

 $H_2C = CH - C = N$

CM 2

CRN 100-42-5 CMF C8 H8

 $_{\rm H2C} = _{\rm CH} - _{\rm Ph}$

RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX

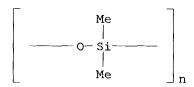
NAME)

CM 1

CRN 80-62-6 CMF C5 H8 O2

 $\begin{array}{ccc} ^{\text{H}_2\text{C}} & \text{O} \\ & \parallel & \parallel \\ \text{Me-C-C-OMe} \end{array}$

RN 9016-00-6 HCAPLUS CN Poly[oxy(dimethylsilylene)] (8CI, 9CI) (CA INDEX NAME)



RN 9016-00-6 HCAPLUS CN Poly[oxy(dimethylsilylene)] (8CI, 9CI) (CA INDEX NAME)

RN 15802-18-3 HCAPLUS CN 2-Propenoic acid, 2-cyano- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{NC-C-CO}_2\text{H} \end{array}$$

RN 18194-24-6 HCAPLUS

CN 3,5,9-Trioxa-4-phosphatricosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxotetradecyl)oxy]-, inner salt, 4-oxide, (7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 19698-29-4 HCAPLUS

CN Hexadecanoic acid, 1-[(phosphonooxy)methyl]-1,2-ethanediyl ester (9CI) (CA INDEX NAME)

RN 24980-41-4 HCAPLUS

CN 2-Oxepanone, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 502-44-3

CMF C6 H10 O2

RN 25014-12-4 HCAPLUS

CN 2-Propenamide, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-39-0 CMF C4 H7 N O

$$\begin{array}{ccc} ^{H_2C} & \text{O} \\ \parallel & \parallel \\ \text{Me-} & \text{C-} & \text{C-} & \text{NH}_2 \end{array}$$

RN 25087-26-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

RN 25248-42-4 HCAPLUS

CN Poly[oxy(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)

$$HO - CH_2 - CH_2 - O - H$$

RN 25322-69-4 HCAPLUS
CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy- (9CI)
(CA INDEX NAME)

RN 26023-30-3 HCAPLUS CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)

RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 50-21-5 CMF C3 H6 O3

OH | | Me-- CH-- CO₂H

RN 26913-06-4 HCAPLUS
CN Poly[imino(1,2-ethanediyl)] (9CI) (CA INDEX NAME)

RN 27457-28-9 HCAPLUS CN Benzenesulfonic acid, ethenyl-, sodium salt (9CI) (CA INDEX NAME)



$$D1-CH=CH_2$$

D1-SO3H

Na

RN 31900-57-9 HCAPLUS

CN Silanediol, dimethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 1066-42-8 CMF C2 H8 O2 Si

$$\begin{array}{c} \text{OH} \\ | \\ \text{H}_3\text{C}-\text{Si}-\text{CH}_3 \\ | \\ \text{OH} \end{array}$$

RN 45103-52-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(sulfooxy)ethyl ester, sodium salt (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ || & || \\ \text{HO}_3 \text{SO} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \end{array}$$

● Na

RN 78543-25-6 HCAPLUS

CN Hexadecanoic acid, 2-[[(2-aminoethoxy)hydroxyphosphinyl]oxy]-1[(hexadecyloxy)methyl]ethyl ester (9CI) (CA INDEX NAME)

RN 97782-02-0 HCAPLUS

ON 9-Octadecenoic acid (9Z)-, 1-[[[[2-(2,5-dioxo-1-pyrrolidinyl)ethoxy]hydroxyphosphinyl]oxy]methyl]-1,2-ethanediyl ester (9CI) (CA INDEX NAME)

Double bond geometry as shown.

O OH O (
$$CH_2$$
) 7 Z (CH_2) 7 Me O (CH_2) 7 Z (CH_2) 7 Me

RN 208345-02-2 HCAPLUS

CN Ethenylidene, polymer with 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 2143-69-3 CMF C2 H2

 $C = CH_2$

CM 2

CRN 107-13-1 CMF C3 H3 N

 $H_2C = CH - C = N$

RN 208345-03-3 HCAPLUS

CN Ethenylidene, polymer with methyl 2-methyl-2-propenoate and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 2143-69-3 CMF C2 H2

 $C = CH_2$

CM 2

CRN 107-13-1 CMF C3 H3 N

 $H_2C = CH - C = N$

CM 3

CRN 80-62-6 CMF C5 H8 O2

RN 217098-79-8 HCAPLUS

CN Benzenamine, 4-[(4-ethenylphenyl)methyl]- (9CI) (CA INDEX NAME)

$$H_2C = CH$$
 NH_2

IT 12629-01-5, Human growth hormone

RL: ARU (Analytical role, unclassified); BPR (Biological process); BUU (Biological use, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses) (novel targeted ultrasound imaging contrast agents for diagnostic and therapeutic use)

RN 12629-01-5 HCAPLUS

CN Somatotropin (human) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 79481-27-9P 186750-22-1DP, reaction products with
 protein A 221553-32-8P

RL: ARU (Analytical role, unclassified); BUU (Biological use,

unclassified); SPN (Synthetic preparation); THU (Therapeutic use); ANST
(Analytical study); BIOL (Biological study); PREP (Preparation); USES
(Uses)

(novel targeted ultrasound imaging contrast agents for diagnostic and therapeutic use)

RN 79481-27-9 HCAPLUS

CN 3,5,8,21-Tetraoxa-4-phosphatetracos-23-en-1-aminium, 4-hydroxy-N,N,N,23-tetramethyl-9,22-dioxo-7-[[(1-oxohexadecyl)oxy]methyl]-, inner salt, 4-oxide, (7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 186750-22-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-(carboxymethyl)-.omega.-[[(10R)-7-hydroxy-7-oxido-2,13-dioxo-10-[(1-oxohexadecyl)oxy]-6,8,12-trioxa-3-aza-7-phosphaoctacos-1-yl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-B

RN 221553-32-8 HCAPLUS

CN Poly(oxy-1,2-ethanediy1), .alpha.-[(10R)-27,27,28,28,29,29,30,30,30-nonafluoro-7-hydroxy-10-[(15,15,16,16,17,17,18,18,18-nonafluoro-1-oxooctadecyl)oxy]-7-oxido-13-oxo-6,8,12-trioxa-3-aza-7-phosphatritriacont-1-yl]-.omega.-hydroxy-, 1-ether with N2-(2-hydroxyethyl)-L-arginylglycyl-L-alpha.-aspartyl-L-serine (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

-(CH₂)₁₃-(CF₂)₃-CF₃

IT 9005-64-5, Tween 20 129849-35-0 221553-14-6 221553-21-5D, reaction products with polyphosphazene 221553-36-2

RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(novel targeted ultrasound imaging contrast agents for diagnostic and therapeutic use)

RN 9005-64-5 HCAPLUS

CN Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivs. (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 129849-35-0 HCAPLUS

CN Poly[nitrilo[bis(4-carboxyphenoxy)phosphoranylidyne]] (9CI) (CA INDEX NAME)

RN 221553-14-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-[(10R)-7-hydroxy-7-oxido-2,13-dioxo-10-[(1-oxohexadecyl)oxy]-6,8,12-trioxa-3-aza-7-phosphaoctacos-1-yl]-.omega.-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-B

RN 221553-21-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, monoether with N2-(2-hydroxyethyl)-L-lysyl-L-glutaminyl-L-alanylglycyl-L-.alpha.-aspartyl-L-valine (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

PAGE 1-B

RN 221553-36-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-(2-aminoethyl)-.omega.-[[(10R)-7-hydroxy-7-oxido-13-oxo-10-[(1-oxooctadecyl)oxy]-6,8,12-trioxa-3-aza-7-phosphatriacont-1-yl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

Me--

PAGE 1-B

$$\begin{array}{c|c} O & & & \\ & || & & \\ & - (CH_2)_{16} - C - O - CH_2 \\ & OH & & O \\ & & | & | \\ & - O - P - O - CH_2 - CH - O - C - (CH_2)_{16} - Me \\ & || & O - CH_2 - C$$

IT 9001-84-7, Phospholipase A2

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BUU (Biological use, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)

(novel targeted ultrasound imaging contrast agents for diagnostic and therapeutic use)

RN 9001-84-7 HCAPLUS

CN Phospholipase A2 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 106096-93-9, Basic fibroblast growth factor

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(novel targeted ultrasound imaging contrast agents for diagnostic and therapeutic use)

RN 106096-93-9 HCAPLUS

CN Fibroblast growth factor, basic (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 127464-60-2, Vascular endothelial growth factor

RL: BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(novel targeted ultrasound imaging contrast agents for diagnostic and therapeutic use)

RN 127464-60-2 HCAPLUS

CN Vascular endothelial growth factor (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 4537-78-4, Distearoylphosphatidylglycerol 9005-49-6,

Heparin, biological studies 9012-76-4D, Chitosan, basic

fibroblast growth hormone conjugate 18883-66-4,

Streptozocin 51110-01-1, Somatostatin

RL: BPR (Biological process); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(novel targeted ultrasound imaging contrast agents for diagnostic and therapeutic use)

RN 4537-78-4 HCAPLUS

CN Octadecanoic acid, 1-[[[(2,3-dihydroxypropoxy)hydroxyphosphinyl]oxy]methyl]-1,2-ethanediyl ester (9CI) (CA INDEX NAME)

RN 9005-49-6 HCAPLUS

CN Heparin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9012-76-4 HCAPLUS

CN Chitosan (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 18883-66-4 HCAPLUS

CN D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)carbonyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 51110-01-1 HCAPLUS

CN Somatostatin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 7440-70-2, Calcium, biological studies 106392-12-5,

Pluronic F 68 221553-50-0

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(novel targeted ultrasound imaging contrast agents for diagnostic and therapeutic use)

RN 7440-70-2 HCAPLUS

CN Calcium (8CI, 9CI) (CA INDEX NAME)

Ca

RN 106392-12-5 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, block (9CI) (CA INDEX NAME)

CM 1

CRN 75-56-9 CMF C3 H6 O



CM 2

CRN 75-21-8 CMF C2 H4 O



RN 221553-50-0 HCAPLUS

CN 2-Propenoic acid, 3-cyano-2-methyl-, methyl ester, polymer with 2-[2-[2-(2-aminoethoxy)ethoxy]ethoxy]ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 221553-49-7 CMF C12 H23 N O5

CM 2

CRN 66396-68-7 CMF C6 H7 N O2

IT 24991-23-9 25513-46-6, Polyglutamic acid RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological

study); USES (Uses)

(novel targeted ultrasound imaging contrast agents for diagnostic and therapeutic use)

RN 24991-23-9 HCAPLUS

CN Poly[imino[(1S)-1-(2-carboxyethyl)-2-oxo-1,2-ethanediyl]] (9CI) (CA INDEX NAME)

RN 25513-46-6 HCAPLUS

CN L-Glutamic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 56-86-0 CMF C5 H9 N O4 CDES 5:L

Absolute stereochemistry.

IT 221553-52-2P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(novel targeted ultrasound imaging contrast agents for diagnostic and therapeutic use)

RN 221553-52-2 HCAPLUS

Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[4-[(2R)-2,3-bis[(1-oxohexadecyl)oxy]propoxy]-1,4-dioxobutyl]amino]ethyl]-.omega.-hydroxy-, ether with cyclo[L-arginylglycyl-N-(2-hydroxyethyl)-L-asparaginyl-3-(aminomethyl)benzoyl-(2R)-2-(methylamino)butanoyl] (9CI) (CA INDEX NAME)

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-(CH₂)₁₄-Me

IT 221553-37-3P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(novel targeted ultrasound imaging contrast agents for diagnostic and therapeutic use)

RN 221553-37-3 HCAPLUS

8,10,14-Trioxa-5-aza-9-phosphatriacontanoic acid, 9-hydroxy-4,15-dioxo-12[(1-oxohexadecyl)oxy]-, 2-[[6-[bis(2-hydroxyethyl)amino]-4,8-di-1piperidinylpyrimido[5,4-d]pyrimidin-2-yl](2-hydroxyethyl)amino]ethyl
ester, 9-oxide, (12R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

Me
$$(CH_2)_{14}$$
 O $(CH_2)_{14}$ O $(CH_2)_{1$

PAGE 1-B

therapeutic use) RN 57-88-5 HCAPLUS

CN Cholest-5-en-3-ol (3.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN

58-32-2 HCAPLUS Ethanol, 2,2',2'',2'''-[(4,8-di-1-piperidinylpyrimido[5,4-d]pyrimidine-2,6-CN diyl)dinitrilo]tetrakis- (9CI) (CA INDEX NAME)

81-81-2 HCAPLUS RN

2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)- (9CI) (CA INDEX CNNAME)

IT 74-88-4, Iodomethane, reactions 110-70-3, N, N'-Dimethylethylenediamine 143-27-1, Hexadecylamine 407-25-0, Trifluoroacetic acid anhydride 505-95-3, 12-Hydroxy dodecanoic acid 598-21-0, .alpha.-Bromoacetyl bromide 623-65-4, Palmitoyl anhydride 920-46-7, Methacryloyl chloride 1069-79-0 4196-35-4 5505-63-5, D-Mannosamine hydrochloride 6066-82-6, N-Hydroxysuccinimide 23911-25-3, Ethylenediaminetetraacetic acid dianhydride

598-21-0 HCAPLUS

RN

CN

```
24424-99-5 24991-53-5 28319-77-9,
     L-.alpha.-Glycerophosphocholine 32130-27-1 36653-82-4,
     Hexadecyl alcohol 39927-08-7 68181-17-9
     80755-87-9 91037-65-9 108032-13-9
     139729-28-5 150525-42-1 186750-27-6
     221553-26-0 221553-39-5 221553-42-0
     221553-51-1
     RL: RCT (Reactant)
        (novel targeted ultrasound imaging contrast agents for diagnostic and
        therapeutic use)
     74-88-4 HCAPLUS
RN
CN
     Methane, iodo- (8CI, 9CI) (CA INDEX NAME)
H3C-I
     110-70-3 HCAPLUS
RN
CN
     1,2-Ethanediamine, N,N'-dimethyl- (9CI) (CA INDEX NAME)
MeNH-CH_2-CH_2-NHMe
     143-27-1 HCAPLUS
RN
     1-Hexadecanamine (9CI) (CA INDEX NAME)
CN
H_2N-(CH_2)_{15}-Me
     407-25-0 HCAPLUS
RN
CN
    Acetic acid, trifluoro-, anhydride (6CI, 8CI, 9CI) (CA INDEX NAME)
    Ω
          0
F3C-C-O-C-CF3
RN
     505-95-3 HCAPLUS
CN
     Dodecanoic acid, 12-hydroxy- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)
HO_2C^- (CH<sub>2</sub>)<sub>11</sub>-OH
```

Acetyl bromide, bromo- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 623-65-4 HCAPLUS

CN Hexadecanoic acid, anhydride (9CI) (CA INDEX NAME)

$$Me^{-(CH_2)}_{14} = C - O - C - (CH_2)_{14} - Me^{-(CH_2)}_{14} = Me^{-(CH_2)}_{14}$$

RN 920-46-7 HCAPLUS

CN 2-Propenoyl chloride, 2-methyl- (9CI) (CA INDEX NAME)

RN 1069-79-0 HCAPLUS

CN Octadecanoic acid, (1R)-1-[[[(2-aminoethoxy)hydroxyphosphinyl]oxy]methyl]1,2-ethanediyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 4196-35-4 HCAPLUS

CN .alpha.-D-Glucopyranosyl bromide, 2,3,4,6-tetrakis-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 5505-63-5 HCAPLUS

CN D-Mannose, 2-amino-2-deoxy-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

RN 6066-82-6 HCAPLUS CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)

RN 23911-25-3 HCAPLUS

CN 2,6-Morpholinedione, 4,4'-(1,2-ethanediyl)bis- (9CI) (CA INDEX NAME)

RN 24424-99-5 HCAPLUS

CN Dicarbonic acid, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

RN 24991-53-5 HCAPLUS

CN Poly(oxy-1,2-ethanediy1), .alpha.-(2-aminoethy1)-.omega.-(2-aminoethoxy)-(9CI) (CA INDEX NAME)

$$H_2N-CH_2-CH_2-O-CH_2-CH_2-O-CH_2-CH_2-NH_2$$

RN 28319-77-9 HCAPLUS

CN Ethanaminium, 2-[[[(2R)-2,3-dihydroxypropoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 32130-27-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-(2-aminoethyl)-.omega.-hydroxy- (9CI) (CA INDEX NAME)

$$HO - CH_2 - CH_2 - O - CH_2 - CH_2 - CH_2 - NH_2$$

RN 36653-82-4 HCAPLUS

CN 1-Hexadecanol (9CI) (CA INDEX NAME)

 $HO-(CH_2)_{15}-Me$

RN 39927-08-7 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-(carboxymethyl)-.omega.-(carboxymethoxy)- (9CI) (CA INDEX NAME)

$$HO_2C-CH_2-O-CH_2-CH_2-CH_2-O-D_n$$

RN 68181-17-9 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-[1-oxo-3-(2-pyridinyldithio)propoxy]- (9CI) (CA INDEX NAME)

$$S-S-CH_2-CH_2-C-O-N$$

RN 80755-87-9 HCAPLUS

CN L-Valine, L-lysyl-L-glutaminyl-L-alanylglycyl-L-.alpha.-aspartyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 91037-65-9 HCAPLUS

CN L-Serine, L-arginylglycyl-L-.alpha.-aspartyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

$$HO_2C$$
 S
 N
 H
 O
 S
 N
 H
 O
 NH_2
 NH_2
 NH_2
 NH_2

RN 108032-13-9 HCAPLUS

CN Butanedioic acid, mono[(2R)-2,3-bis[(1-oxohexadecyl)oxy]propyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 139729-28-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-(2-aminoethyl)-.omega.-(carboxymethoxy)-(9CI) (CA INDEX NAME)

$$H_2N-CH_2-CH_2-CH_2-CH_2-CH_2-CH_2-CO_2H$$

RN 150525-42-1 HCAPLUS

CN 8,10,14-Trioxa-5-aza-9-phosphatriacontanoic acid, 9-hydroxy-4,15-dioxo-12-[(1-oxohexadecyl)oxy]-, 9-oxide, (12R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 186750-27-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-(2-aminoethyl)-.omega.-[((15R)-12-hydroxy-12-oxido-4,7,8-trioxo-15-[(1-oxohexadecyl)oxy]-11,13,17-trioxa-3,8-diaza-12-phosphatritriacont-1-yl]oxy]- (9CI) (CA INDEX NAME)

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RN 221553-26-0 HCAPLUS

CN Octadecanoic acid, 15,15,16,16,17,17,18,18,18-nonafluoro-, 1-[[[(2-aminoethoxy)hydroxyphosphinyl]oxy]methyl]-1,2-ethanediyl ester (9CI) (CA INDEX NAME)

RN 221553-39-5 HCAPLUS

CN 2-Butenoic acid, 4-[[3-[(2,5-dioxo-1-pyrrolidinyl)oxy]-3-oxopropyl]amino]-4-oxo-(9CI) (CA INDEX NAME)

RN 221553-42-0 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 1-[3-[(2,5-dioxo-1-pyrrolidinyl)oxy]-3-oxopropoxy]- (9CI) (CA INDEX NAME)

RN 221553-51-1 HCAPLUS

CN Cyclo[L-arginylglycyl-L-.alpha.-aspartyl-3-(aminomethyl)benzoyl-(2R)-2-(methylamino)butanoyl] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Et N O H N O H S
$$CO_2H$$
 H_{2N} H_{1} CO_2H

IT 56309-86-5P 78103-30-7P 79487-02-8P 79605-84-8P 139729-27-4P 186750-12-9P 186750-13-0P 186750-15-2P 186750-18-5P 186750-19-6P 186750-20-9P 186750-22-1P 186750-23-2P 186750-25-4P 186750-28-7P 186750-29-8P 186750-33-4P 221553-04-4P 221553-29-3P 221553-45-3P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (novel targeted ultrasound imaging contrast agents for diagnostic and therapeutic use) 56309-86-5 HCAPLUS RN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, 1,1'-dihexadecyl ester CN (9CI) (CA INDEX NAME)

RN 78103-30-7 HCAPLUS CN D-Mannose, 2-[(bromoacetyl)amino]-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 79487-02-8 HCAPLUS

CN Dodecanoic acid, 12-[(2-methyl-1-oxo-2-propenyl)oxy]-, anhydride (9CI) (CA INDEX NAME)

RN 79605-84-8 HCAPLUS

CN 3,5,9,22-Tetraoxa-4-phosphapentacos-24-en-1-aminium, 4-hydroxy-N,N,N,24-tetramethyl-7-[[12-[(2-methyl-1-oxo-2-propenyl)oxy]-1-oxododecyl]oxy]-10,23-dioxo-, inner salt, 4-oxide, (7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c} \text{CH2} \\ \text{Me} \\ \text{O} \\ \text{O} \\ \text{O} \\ \text{O} \\ \text{O} \\ \text{P} \\ \text{O} \\ \text{P} \\ \text{O} \\ \text{O} \\ \text{CH2} \end{array}) \begin{array}{c} \text{O} \\ \text{CH2} \\ \text{O} \\ \text{CH2} \\ \text{CH2$$

RN 139729-27-4 HCAPLUS

CN Poly(oxy-1,2-ethanediy1), .alpha.-(carboxymethy1)-.omega.-[2-[[(1,1-dimethylethoxy)carbony1]amino]ethoxy]- (9CI) (CA INDEX NAME)

$$t-BuO-C-NH-CH_2-CH_2-O-CH_2-CH_2-O-D_n$$

RN 186750-12-9 HCAPLUS

CN Glycine, N, N'-1, 2-ethanediylbis[N-[2-(hexadecylamino)-2-oxoethyl]- (9CI) (CA INDEX NAME)

RN 186750-13-0 HCAPLUS

CN 2,5,8,11-Tetraazatridecan-13-amide, 11-[2-[[2-(dimethylamino)ethyl]amino]-2-oxoethyl]-N-hexadecyl-8-[2-(hexadecylamino)-2-oxoethyl]-2-methyl-6-oxo-(9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{O} & \text{CH}_2-\text{C-NH-CH}_2-\text{CH}_2-\text{NMe}_2 \\ \text{Me- (CH}_2)_{15}-\text{NH-C-CH}_2-\text{N} & \text{O} \\ \text{CH}_2-\text{CH}_2-\text{N-CH}_2-\text{C-NH-CH}_2-\text{CH}_2-\text{NMe}_2 \\ \text{CH}_2-\text{CH}_2-\text{N-CH}_2-\text{C-NH-(CH}_2)_{15}-\text{Me} \\ \text{O} \end{array}$$

RN 186750-15-2 HCAPLUS

CN 2,5,8,11-Tetraazatridecan-13-oic acid, 11-(carboxymethyl)-8-[2-(hexadecyloxy)-2-oxoethyl]-2-methyl-6-oxo-, 13-hexadecyl ester (9CI) (CA INDEX NAME)

RN 186750-18-5 HCAPLUS

CN Hexadecanoic acid, (1R)-1-[[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-1,4-dioxobutoxy]methyl]-1,2-ethanediyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 186750-19-6 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[4-[(2R)-2,3-bis[(1-oxohexadecyl)oxy]propoxy]-1,4-dioxobutyl]amino]ethyl]-.omega.(carboxymethoxy)- (9CI) (CA INDEX NAME)

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RN 186750-20-9 HCAPLUS
CN Poly(oxy-1,2-ethanediy1), .alpha.-[2-[[4-[(2R)-2,3-bis[(1-oxohexadecy1)oxy]propoxy]-1,4-dioxobuty1]amino]ethy1]-.omega.-[2-[(2,5-dioxo-1-pyrrolidiny1)oxy]-2-oxoethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 186750-22-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-(carboxymethyl)-.omega.-[[(10R)-7-hydroxy-7-oxido-2,13-dioxo-10-[(1-oxohexadecyl)oxy]-6,8,12-trioxa-3-aza-7-phosphaoctacos-1-yl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-B

RN 186750-23-2 HCAPLUS

CN Poly(oxy-1,2-ethanediy1), .alpha.-[2-[(2,5-dioxo-1-pyrrolidiny1)oxy]-2-oxoethy1]-.omega.-[[(10R)-7-hydroxy-7-oxido-2,13-dioxo-10-[(1-oxohexadecy1)oxy]-6,8,12-trioxa-3-aza-7-phosphaoctacos-1-y1]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

$$\begin{array}{c} \circ \\ \parallel \\ \circ - \text{C- (CH}_2)_{14} - \text{Me} \\ - \circ - \text{CH}_2 - \text{CH- CH}_2 - \text{O- C- (CH}_2)_{14} - \text{Me} \\ \parallel \\ \circ \end{array}$$

RN 186750-25-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-(2-aminoethyl)-.omega.-[2-[[4-[(2R)-2,3-bis[(1-oxohexadecyl)oxy]propoxy]-1,4-dioxobutyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 186750-28-7 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[4-[(2R)-2,3-bis[(1-oxohexadecyl)oxy]propoxy]-1,4-dioxobutyl]amino]ethyl]-.omega.-[2-[[1-oxo-3-(2-pyridinyldithio)propyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 1-C

- (CH₂)₁₄-Me

RN 186750-29-8 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-[12-hydroxy-12-oxido-4,7,18-trioxo-(15R)-15-[(1-oxohexadecyl)oxy]-11,13,17-trioxa-3,8-diaza-12-phosphatritriacont-1-yl]-.omega.-[2-[[1-oxo-3-(2-pyridinyldithio)propyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

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PAGE 1-C

RN 186750-33-4 HCAPLUS

CN

Poly(oxy-1,2-ethanediy1), .alpha.-[2-[(trifluoroacety1)amino]ethy1]-.omega.-hydroxy- (9CI) (CA INDEX NAME)

HO
$$CH_2 - CH_2 - O - O - CH_2 - CH_2 - NH - C - CF_3$$

RN 221553-04-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-(carboxymethyl)-.omega.-(carboxymethoxy)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 39927-08-7

CMF (C2 H4 O)n C4 H6 O5

CCI PMS

$$HO_2C-CH_2-O-CH_2-CH_2-CH_2-O-D_n$$

RN 221553-29-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-(2-aminoethyl)-.omega.-[[(10R)-27,27,28,28,29,29,30,30,30-nonafluoro-7-hydroxy-10-[(15,15,16,16,17,17,18,18,18-nonafluoro-1-oxooctadecyl)oxy]-7-oxido-13-oxo-6,8,12-trioxa-3-aza-7-phosphatriacont-1-yl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 221553-45-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-(2-aminoethyl)-.omega.-[2-(.alpha.-D-glucopyranosyloxy)ethoxy]- (9CI) (CA INDEX NAME)

IT 80294-15-1P 186750-11-8P 186750-14-1P 186750-21-0P 186750-24-3P 186750-26-5P 186750-29-8DP, conjugate with protein A 221552-96-1P 221552-99-4P 221553-14-6DP, conj. with protein A 221553-44-2DP, conjugate with protein A 221553-46-4P 221553-48-6P RL: SPN (Synthetic preparation); PREP (Preparation) (novel targeted ultrasound imaging contrast agents for diagnostic and therapeutic use) RN80294-15-1 HCAPLUS 3,5,9,22-Tetraoxa-4-phosphapentacos-24-en-1-aminium, 4-hydroxy-N,N,N,24-CN tetramethyl-10,23-dioxo-7-[(1-oxohexadecyl)oxy]-, inner salt, 4-oxide, (7R) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 186750-11-8 HCAPLUS
CN 3,12-Diaza-6,9-diazoniatetradecane-1,14-diaminium, 6,9-bis[2-(hexadecylamino)-2-oxoethyl]-N,N,N,N',N',N',6,9-octamethyl-4,11-dioxo-,tetraiodide (9CI) (CA INDEX NAME)

•4 I-

RN 186750-14-1 HCAPLUS
CN 12-0xa-3,9-diaza-6-azoniaoctacosan-1-aminium, 9-(carboxymethyl)-6-[2-(hexadecyloxy)-2-oxoethyl]-N,N,N,6-tetramethyl-4,11-dioxo-, diiodide (9CI) (CA INDEX NAME)

●2 I-

RN 186750-21-0 HCAPLUS

CN L-Valine, hydroxyacetyl-L-lysyl-L-glutaminyl-L-alanylglycyl-L-.alpha.-aspartyl-, monoether with .alpha.-[(10R)-7-hydroxy-7-oxido-2,13-dioxo-10-[(1-oxohexadecyl)oxy]-6,8,12-trioxa-3-aza-7-phosphaoctacos-1-yl]-.omega.-hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 1-C

RN 186750-24-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[4-[(2R)-2,3-bis[(1-oxohexadecyl)oxy]propoxy]-1,4-dioxobutyl]amino]ethyl]-.omega.-[2-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c|c} & & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & &$$

PAGE 1-B

RN 186750-26-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]ethyl]-.omega.-[[(15R)-12-hydroxy-12-oxido-4,7,18-trioxo-15-[(1-oxohexadecyl)oxy]-11,13,17-trioxa-3,8-diaza-12-phosphatritriacont-1-yl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

$$CH_2 - CH_2 -$$

PAGE 1-B

PAGE 1-C

$$-$$
 (CH₂)₁₄ $-$ Me

RN 186750-29-8 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-[12-hydroxy-12-oxido-4,7,18-trioxo-(15R)-15-[(1-oxohexadecyl)oxy]-11,13,17-trioxa-3,8-diaza-12-phosphatritriacont-1-yl]-.omega.-[2-[[1-oxo-3-(2-pyridinyldithio)propyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 1-C

RN 221552-96-1 HCAPLUS

CN 1,2-Ethanediaminium, N,N'-bis[2-[[2-(dimethylamino)ethyl]amino]-2-oxoethyl]-N,N'-[2-(hexadecylamino)-2-oxoethyl]-N,N'-dimethyl-, diiodide (9CI) (CA INDEX NAME)

●2 T-

RN 221552-99-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[4-[(2R)-2,3-bis[(1-oxohexadecyl)oxy]propoxy]-1,4-dioxobutyl]amino]ethyl]-.omega.-hydroxy-, ether with N2-(2-hydroxyethyl)-L-lysyl-L-glutaminyl-L-alanylglycyl-L-.alpha.-aspartyl-L-valine (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 1-C

RN 221553-14-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-[(10R)-7-hydroxy-7-oxido-2,13-dioxo-10-[(1-oxohexadecyl)oxy]-6,8,12-trioxa-3-aza-7-phosphaoctacos-1-yl]-.omega.-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 221553-44-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[4-[(2R)-2,3-bis[(1-oxohexadecyl)oxy]propoxy]-1,4-dioxobutyl]amino]ethyl]-.omega.-[2-[[3-[(2,5-dioxo-3-pyrrolidinyl)thio]-1-oxopropyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 221553-46-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[4-[(2R)-2,3-bis[(1-oxohexadecyl)oxy]propoxy]-1,4-dioxobutyl]amino]ethyl]-.omega.-[2-(.alpha.-D-glucopyranosyloxy)ethoxy]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me-} (\text{CH}_2)_{14} - \text{C-O} & \text{O} & \text{O} \\ | | & | | & | | \\ \text{Me-} (\text{CH}_2)_{14} - \text{C-O-CH}_2 - \text{CH-CH}_2 - \text{O-C-CH}_2 - \text{CH}_2 - \text{CH}_1 - \text{CH}_2 - \text{CH}_2$$

PAGE 1-B

$$-CH_{2}$$
 $-CH_{2}$ $-CH_$

RN 221553-48-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[4-[(2R)-2,3-bis[(1-oxohexadecyl)oxy]propoxy]-1,4-dioxobutyl]amino]ethyl]-.omega.-hydroxy-, 2-ether with 2-deoxy-2-[[[(2-hydroxyethyl)amino]acetyl]amino]-.alpha.-D-mannopyranose (9CI) (CA INDEX NAME)

$$-CH_{2}$$
 $O-CH_{2}-CH_{2}$ $O-CH_{2}-CH_{2}-NH-CH_{2}-C-NH$ $O-CH_{2}-CH_{2}-NH-CH_{2}-C-NH$ $O-CH_{2}-CH_{2}-NH-CH_{2}-C-NH$ $O-CH_{2}-CH_{2}-NH-CH_{2}-C-NH$

PAGE 1-C

— cн₂-он

RE.CNT 4

RE

- (1) Grinstaff; US 5505932 A 1996
- (2) Lohrmann; US 5536489 A 1996
- (3) Schneider, E; US 5380519 A 1995 HCAPLUS
- (4) Schutt; US 5540909 A 1996
- L8 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2001 ACS
- AN 1999:133201 HCAPLUS
- DN 130:165174
- TI Methods of computed tomography using perfluorocarbon gaseous filled microspheres as contrast agents
- IN Unger, Evan C.
- PA ImaRx Pharmaceutical Corp., USA
- SO U.S., 27 pp., Cont.-in-part of U.S. Ser. No. 247,656, abandoned. CODEN: USXXAM
- DT Patent
- LA English
- FAN.CNT 5

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 5874062	A	19990223	US 1995-445299	19950519
US 5205290	Α	19930427	US 1991-680984	19910405
EP 804932	A2	19971105	EP 1997-201854	19920318
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC

RNCN

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                                         EP 2000-203214
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        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC
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                      A1
                           19951130
                                         WO 1995-US6499
                                                          19950522
        W: AU, CA, CN, JP
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
    AU 9526013
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                                         AU 1995-26013
                                                          19950522
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                           19970924 CN 1995-193160
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                      Α3
                           19950524
    AU 1995-33103
                      A3
                           19951006
AB
    The present invention is directed to a contrast medium useful for computed
     tomog. imaging, said contrast medium comprising stabilized gas and gaseous
    precursor filled microspheres, wherein the gas may be, for example, air or
    nitrogen, but may also be derived from a gaseous precursor, for example,
    perfluoropentane, and the microspheres are stabilized by being formed from
    a stabilizing compd., for example, a biocompatible lipid or polymer.
    certain preferred embodiments, the biocompatible lipid comprises a
    phospholipid which is in the form of a lipid bilayer. A unique aspect of
     the present invention involves the use of perfluorocarbon gases which are
    capable of maintaining the integrity, and thus, enhancing the stability,
    of the microspheres.
IT
    75-73-0, Perfluoromethane 76-16-4, Perfluoroethane
    76-19-7, Perfluoropropane 115-25-3, Perfluorocyclobutane
    335-57-9, Perfluoroheptane 355-25-9, Perfluorobutane
    355-42-0, Perfluorohexane 678-26-2, Perfluoropentane
    RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); THU
     (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES
     (Uses)
       (contrast agent; methods of computed tomog. using perfluorocarbon
       gaseous filled lipid microspheres as contrast agents)
    75-73-0 HCAPLUS
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Methane, tetrafluoro- (9CI) (CA INDEX NAME)

RN 76-16-4 HCAPLUS CN Ethane, hexafluoro- (8CI, 9CI) (CA INDEX NAME)

RN 76-19-7 HCAPLUS CN Propane, octafluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)

$$F_3C-CF_2-CF_3$$

RN 115-25-3 HCAPLUS CN Cyclobutane, octafluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 335-57-9 HCAPLUS CN Heptane, hexadecafluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)

$$F_3C^-(CF_2)_5-CF_3$$

RN 355-25-9 HCAPLUS CN Butane, decafluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

$$F_3C-CF_2-CF_2-CF_3$$

RN 355-42-0 HCAPLUS

CN Hexane, tetradecafluoro- (6CI, 8CI, 9CI) (CA INDEX NAME)

F3C- (CF2)4-CF3

RN 678-26-2 HCAPLUS

CN Pentane, dodecafluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

F3C- (CF2) 3-CF3

IT 5681-36-7D, Dipalmitoylphosphatidylethanolamine, polyethylene glycol 5000 conjugate 25322-68-3D,

dipalmitoylphosphatidylethanolamine conjugate

RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(methods of computed tomog. using perfluorocarbon gaseous filled lipid microspheres as contrast agents)

RN 5681-36-7 HCAPLUS

CN Hexadecanoic acid, 1-[[[(2-aminoethoxy)hydroxyphosphinyl]oxy]methyl]-1,2ethanediyl ester (9CI) (CA INDEX NAME)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)

HO
$$CH_2-CH_2-O$$
 H

1T 63-89-8 5681-36-7, Dipalmitoylphosphatidylethanolamine 7727-37-9, Nitrogen, biological studies 9002-89-5, Polyvinylalcohol 9003-39-8, Polyvinylpyrrolidone 19698-29-4, Dipalmitoylphosphatidic acid 25322-68-3, Polyethylene glycol 25322-69-4, Polypropylene glycol 78543-25-6, 1-Hexadecyl-2-palmitoylglycerophosphoethanolamine

97782-02-0

RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(microspheres, gas filled; methods of computed tomog. using perfluorocarbon gaseous filled lipid microspheres as contrast agents)

RN 63-89-8 HCAPLUS

CN 3,5,9-Trioxa-4-phosphapentacosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxohexadecyl)oxy]-, inner salt, 4-oxide, (7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 5681-36-7 HCAPLUS

CN Hexadecanoic acid, 1-[[[(2-aminoethoxy)hydroxyphosphinyl]oxy]methyl]-1,2-ethanediyl ester (9CI) (CA INDEX NAME)

RN 7727-37-9 HCAPLUS

CN Nitrogen (8CI, 9CI) (CA INDEX NAME)

N = N

RN 9002-89-5 HCAPLUS

CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 557-75-5

CMF C2 H4 O

 $H_2C = CH - OH$

RN 9003-39-8 HCAPLUS

CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 88-12-0

CMF C6 H9 N O

RN 19698-29-4 HCAPLUS

CN Hexadecanoic acid, 1-[(phosphonooxy)methyl]-1,2-ethanediyl ester (9CI) (CA INDEX NAME)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX

$$HO - \begin{bmatrix} CH_2 - CH_2 - O \end{bmatrix}$$
 H

RN 25322-69-4 HCAPLUS

CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)

$$HO \longrightarrow (C_3H_6) - O \longrightarrow n$$

RN 78543-25-6 HCAPLUS

CN Hexadecanoic acid, 2-[[(2-aminoethoxy)hydroxyphosphinyl]oxy]-1-[(hexadecyloxy)methyl]ethyl ester (9CI) (CA INDEX NAME)

RN 97782-02-0 HCAPLUS

CN 9-Octadecenoic acid (9Z)-, 1-[[[[2-(2,5-dioxo-1-pyrrolidinyl)ethoxy]hydroxyphosphinyl]oxy]methyl]-1,2-ethanediyl ester (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RE.CNT 71

RE

- (2) Anon; EP 0107559 1984 HCAPLUS
- (3) Anon; EP 0077752 B1 1986 HCAPLUS
- (4) Anon; EP 0231091 1987 HCAPLUS
- (6) Anon; EP 0272091 1988 HCAPLUS
- (10) Anon; EP 0361894 1990 HCAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT